HUIPING (LILY) CHEN

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EDUCATION

Expected 12/25 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Coursework:*** stochastic calculus, risk and portfolio management, data science and data driven modeling

08/17 - 05/21 **CARNEGIE MELLON UNIVERSITY** Pittsburgh, PA
B.S. in Mathematics

- ***Coursework:*** computational finance, functional programming, operations research, machine learning, real analysis, probability, accounting, global business
- ***Honors/Awards:*** Mellon College of Science, College Honors

EXPERIENCE

07/21 - 04/24 **GOLDMAN SACHS** New York, NY
Associate Quantitative Strategist - Mortgage Backed Securities (Python, Slang, SQL)

- Built improved empirical duration model from scratch (to reduce latency and increase stability) for TBAs to serve as benchmark for fundamental model OAD and desk marking
- Published weekly and monthly commentary reports internally and externally, covering topics including basis movements, prepayment trends by different attributes, and mortgage rate trends
- Supported and uplifted infrastructure to store security data and traders' marks, which are key inputs for risk and pricing models that strats, traders, controllers, and risk professionals use
- Calibrated agency fundamental model parameters during times of volatile market movements to align model outputs better with expectations, enhancing trading desk decision making
- Developed and maintained apps that agency pass-through and CMO desks use to track live positions and risks, inquiry information, securities' pricing, and market trends
- Used EMBS, McDash (daily data), and mortgage indices to analyze agency MBS prepayment speeds and trends to project monthly prepayment speeds
- Published US bank holdings external quarterly reports, which break down MBS and other fixed income securities holdings trends over time across different banks

07/20 - 08/20 **Summer Analyst - Mortgage Backed Securities (Python, Slang)**

- Retrieved and analyzed 4 years of CLO portfolio data from internal database; used knowledge of product to filter for updated and active deals and calibrate variables for each tranche
- Trained data on multi-linear Ridge regression models using Python pandas and Sklearn to produce CLO beta report, providing macro indicators for CLO pricing for traders

06/19 - 07/19 **CARNEGIE MELLON UNIVERSITY** Pittsburgh, PA
Computational Finance Summer Research Analyst (Python, Mathematica)

- Used Black-Scholes ODE to price single stock barrier options with variable volatility; also priced 2-stock options using Black-Scholes PDE with bounded and unbounded stock prices
- Ran Monte-Carlo computer simulations for options to test results

08/18 - 12/20 **Teaching Assistant (Latex, R)**

- Taught recitations, held office hours, and graded homework each week independently
- Collaborated with fellow TAs and professors to grade midterm and final exams

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, SQL, R, Latex, Mathematica, Slang (Goldman proprietary)
Applications: Microsoft Excel, Intex, YieldBook, FactSet, GitLab
Languages: English (native), Mandarin (native)
Affiliations/Certifications: SIE, Series 7, Series 63